Patent Claims :
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1. A method of estimating the pitch of a speech signal
5    (2), said method comprising the steps of:
   • dividing the speech signal into segments,
   • calculating for each segment a conformity function
     for the signal, and
   • detecting peaks in the conformity function,
10   c h a r a c t e r i z e d   in that the method further
   comprises the steps of:
   • calculating an average value of pitch estimates es-
     timated in a number of previous segments,
   • calculating for each peak in the conformity function
15   the difference between the position of the peak and
     said average value, and
   • using the position of the peak having the smallest
     value of said difference as an estimate of the
     pitch.
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2. A method according to claim 1,   c h a r a c t e r -
i z e d   in that it further comprises the steps of:
   • sampling the speech signal to obtain a series of
     samples, and
25   • performing said division into segments such that
     each segment has a fixed number of consecutive sam-
     ples.

3. A method according to claim 1 or 2,   c h a r a c -
30   t e r i z e d   in that it further comprises the steps
   of:
   • estimating a set of filter parameters using linear
     predictive analysis (LPA),
   • providing a modified signal (26) by filtering the
35   speech signal through a filter based on said esti-
     mated set of filter parameters, and

- calculating said conformity function of the modified signal.

4. A method according to any one of claims 1 to 3, c h a r a c t e r i z e d in that said conformity func- tion is calculated as an autocorrelation function.

5. A method according to any one of claims 1 to 4, c h a r a c t e r i z e d in that it further comprises the step of:
  - selecting, if the peak having the smallest value of said difference is represented by a number of sam- ples, the sample having the maximum amplitude of said conformity function as said estimate of the pitch.

6. Use of the method according to any one of claims 1 to 5 in a mobile telephone.

7. A device adapted to estimate the pitch of a speech signal, and comprising:
  - means (3) for dividing the speech signal into seg- ments,
  - means (5) for calculating for each segment a confor- mity function for the signal, and
  - means (6) for detecting peaks in the conformity function,
c h a r a c t e r i z e d in that the device is further adapted to:
  - calculate an average value of pitch estimates esti- mated in a number of previous segments,
  - calculate for each peak in the conformity function the difference between the position of the peak and said average value, and

- use the position of the peak having the smallest value of said difference as an estimate of the pitch.

5   8. A device according to claim 7, c h a r a c t e r - i z e d   in that it further comprises:
- means (3) for sampling the speech signal to obtain a series of samples, and
- means for performing said division into segments
10   such that each segment has a fixed number of con- secutive samples.

9. A device according to claim 7 or 8, c h a r a c - t e r i z e d   in that it further comprises:
15   - means (4; 24) for estimating a set of filter parame- ters using linear predictive analysis (LPA),
- means (4; 25) for providing a modified signal by filtering the speech signal through a filter based on said estimated set of filter parameters, and
20   - means (5) for calculating said conformity function of the modified signal.

10. A device according to any one of claims 7 to 9, c h a r a c t e r i z e d   in that said conformity func-
25   tion is an autocorrelation function.

11. A device according to any one of claims 7 to 10, c h a r a c t e r i z e d   in that it is further adapted to
30   select, if the peak having the smallest value of said difference is represented by a number of samples, the sample having the maximum amplitude of said conformity function as said estimate of the pitch.

12. A device according to any one of claims 7 to 11, c h a r a c t e r i z e d  in that the device is a mobile telephone.

5    13. A device according to any one of claims 7 to 11, c h a r a c t e r i z e d  in that the device is an integrated circuit.